

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. When striketrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (PREVIOUSLY PRESENTED), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND the claims as noted below:

Listing of the Claims:

1. (Currently Amended) Apparatus including:

a first component defining a first passage;

a second component connectable with the first component and defining a second passage, said passages being aligned when the components are connected to each other;

a rotatable locking pin having formations and a retaining element having engaging formations complimentary to the formations and each configured for being accommodated in the aligned passages thereby to prevent separation of the components, the rotatable locking pin being rotatable relative to the components, when so accommodated in the aligned passages, relative to the components, between

a locked position in which the engaging formations of the locking pin engages engage at least one of the complimentary formations components so as to prevent withdrawal of the locking pin from the aligned passages, and to prevent separation of the components, and

a free position in which the pin is slidably removable from the aligned passages to permit separation of the components,

wherein ~~one of said components includes a retaining formation and said pin is configured for engagement with said retaining formation when the pin is in the locked position, said~~the complimentary formations of the pin including a pair of spaced walls are at least partly defining a disposed along a circumferentially circumference extending slot in of the pin, and

wherein the pin being is configured such so that the retaining engaging formations of the retaining element formation interlock with the complimentary formations of the pin enters said slot as said the pin is rotated from said the free position to said the locked position to prevent separation of the first and second components.

2. (Currently Amended) Apparatus according to claim 1, wherein ~~configured such that~~ when the first component and second component are connected to each other, they can substantially only be separated by effecting relative movement of the components in opposite disengagement directions, and wherein ~~the extending of interlocking the pin with the retaining element within from the aligned first passage into the and second passages prevents said the relative movement of the first and second in said opposite disengagement directions and also prevents separation of the first and second components.~~
3. (Currently Amended) Apparatus according to claim 2, wherein ~~configured such that~~ the pin, when accommodated in said ~~the~~ aligned passages, extends in a direction non-parallel to said ~~the~~ disengagement directions.
4. (Currently Amended) Apparatus according to claim 3, configured wherein ~~such that~~ the pin, when accommodated in said ~~the~~ aligned passages, extends in a direction substantially perpendicular to said disengagement directions.
5. (Cancelled)
6. (Cancelled)
7. (Currently Amended) Apparatus according to claim 6, wherein the pin has an axis of rotation and rotation of the pin around that axis moves the pin between the locked position and the free position and one end of the pin along the axis rests on a part of the first or the second component about which the pin rotates between the free and locked positions, the pin further having a surface which constitutes a floor of the slot, the floor having a first end, with successive positions along the floor away from the first end being disposed successively further, radially, from said axis, the retaining formation being configured to engage and ride along said floor when the pin is rotated from the free position to the locked position.
8. (Currently Amended) Apparatus according to claim 7, wherein the retaining element rotates along a retaining element axis so as to engage with the pin between the locked position and the free position and one end of the retaining element along the retaining element axis rests on a part of the first or second component ~~floor has a second end opposite the first end thereof, and defines a land area adjacent the second end for stably engaging the retaining formation when the pin is in the locked position.~~
9. (Currently Amended) Apparatus according to claim 8, wherein the complimentary formations include the land areas is that are substantially flat.
10. (Currently Amended) Apparatus according to claim 8, wherein the complimentary formations include land areas is that are substantially concave.
11. (Currently Amended) Apparatus according to claim 1, wherein the complimentary formations form a slot extends helically helical corkscrew about the pin such so that upon rotation of the pin

from the free position to the locked position in one direction, ~~the first formation engages at least one of said walls to draw~~ draws the pin further into said ~~the~~ aligned passages, and upon rotation of the pin in the opposite direction from the locked position to the free position ~~the retaining formation engages at least one of said walls to force~~ drives the pin partly out of said ~~the~~ aligned passages.

12. (Currently Amended) Apparatus according to claim 1, wherein the pin has therein an insertion recess extending, longitudinally relative to the pin, ~~to at least a first end of the pin, the insertion recess being configured to accommodate the retaining formation element and to permit insertion of the pin into said the aligned passages when the insertion recess is aligned with said the retaining formation element.~~

13. (Currently Amended) Apparatus according to claim 12, wherein the insertion recess does not ~~extends~~ extend along an entire longitudinal length of the pin ~~to the first end of the pin but terminates at a position spaced from an opposite, second end of the pin.~~

14. (Currently Amended) Apparatus according to claim 13, wherein the pin further has ~~therein comprises~~ a withdrawal recess which is spaced, circumferentially relative to the pin, which is displaced longitudinally on a circumference of the pin and apart from the insertion recess, and which extends longitudinally relative to the pin to said second end of the pin but which terminates at a position spaced from said first end of the pin, whereby the insertion recess permits insertion of the pin via one end of said aligned passages in a first longitudinal direction of the pin when the insertion recess is aligned with the retaining formation, and the withdrawal recess permits withdrawal of the pin in said first direction, via an opposite end of said from the aligned passages, when the withdrawal recess is aligned with the retaining formation element.

15. (Currently Amended) Apparatus according to claim 14, wherein the pin is ~~configured such that, once when~~ having been inserted into the aligned passages with the insertion recess aligned with the retaining formation element, the pin is in the free position and is rotatable to the locked position in a particular rotational direction, and once having being rotated thus to the locked position, is rotatable in said the particular rotational direction to a further position in which the withdrawal recess is aligned with the retaining formation element.

16. (Currently Amended) Apparatus according to claim 1, wherein one of the passage passages ~~of one of the components is closed at one end such that said the aligned passages are closed at one end.~~

17. (Currently Amended) Apparatus according to claim 16, wherein the component having a passage closed at one end ~~preferably includes~~ a resilient element in that passage immediately adjacent the one closed end, wherein the pin, when accommodated in said aligned passages, is configured to abut against the resilient element.

18. (Currently Amended) Apparatus according to claim 1, wherein the passage of one of said components includes two coaxial spaced-apart sub-passages, and the passage of the other component is disposed between, and aligned with, said sub-passages when the components are connected to each other, to form said aligned passages.

19. (Currently Amended) Apparatus according to claim 1, wherein at least part of said retaining ~~formation element~~ is resiliently movable under a force exerted by the pin when the pin is rotated from said free position to said locked position.

20. (Currently Amended) Apparatus according to claim 19, wherein the said component that includes said retaining ~~formation element~~ further includes resilient means for allowing said resilient movement of ~~said part of the retaining formation element~~, while urging said part against the pin.

21. (Currently Amended) Apparatus according to claim 20, wherein ~~said component that includes said retaining formation element~~ further includes a retaining-resilient element, the retaining-resilient element including an elastomeric support and an engagement element, ~~wherein the support constitutes said resilient means and the engagement element includes of the said retaining formation element and abuts the support.~~

22. (Currently Amended) Apparatus according to claim 21, wherein the support defines a channel in which the engagement element is received.

23. (Currently Amended) Apparatus according to claim 22, wherein the support and engagement element are bonded to each other.

24. (Currently Amended) Apparatus according to claim 22, wherein the support defines a deformation passage extending substantially parallel to said ~~channel~~support, to facilitate resilient deformation of the support.

25. (Currently Amended) Apparatus according to claim 21, wherein the engagement element is castellated so as to define a plurality of ~~said retaining-engaging~~ formations, each of which engages said pin when the pin is in the locked position.

26. (Currently Amended) Apparatus according to claim 20, wherein said retaining ~~formation element~~ has a hole having a closed end and an opposite open end, ~~said retaining-engaging formation being located on a retaining element including said resilient means within said hole, the retaining-engaging formation or engagement element being movable along said hole and abutted against said resilient means~~element, and protruding through said open end.

27. (Cancelled)

28. (Cancelled)

29. (Currently Amended) Apparatus according to claim 26, wherein the resilient ~~means~~element is constituted by an elastomeric material.

30. (Currently Amended) Apparatus according to claim 26, wherein the retaining element includes a plurality of said holes and a plurality of said retaining-engaging formations.
31. (Currently Amended) Apparatus according to claim 1, wherein the first and second components are machinery components, the first component being a wear-component configured to wear ~~in~~ with use, and the second component is configured to support the first component.
32. (Currently Amended) Apparatus according to claim 1, wherein the first component and second component are components of earth moving equipment.
33. (Currently Amended) Apparatus according to claim 32, wherein the first component and second component are a tooth and an adaptor, respectively, of earth moving equipment, the adaptor being configured to mount the tooth to an earth moving bucket.
34. (Currently Amended) Apparatus according to claim 32, wherein the first component and second component are a shroud and adaptor, respectively, of earth moving equipment, the adaptor being configured to mount the shroud to an earth moving bucket.
35. (Currently Amended) Apparatus according to claim 32, wherein the first component is one of a tooth and a shroud, and the second component is a lip of an earth moving bucket.
36. (Currently Amended) Apparatus according to claim 1, wherein the pin includes a non-circular formation at an end of the pin for engagement with a rotatable tool to effect rotation of the pin between the free and locked positions.
37. (Currently Amended) Apparatus according claim 1, wherein at one end, the pin, ~~adjacent, but spaced from, one end,~~ has a cavity therein, and ~~an end portion extending from said one end to the cavity, the end portion having an aperture extending there through from the end to communicate with and opening through said one end and opening into the cavity and to,~~ the end portion having an inner surface facing into the cavity away from said one end, the aperture ~~permitting permit~~ the insertion of a pin-removal tool ~~therethrough into the cavity and withdrawal to withdraw~~ of the pin from said aligned passages by engagement of the pin-removal tool with said inner surface the cavity.
38. (Currently Amended) Apparatus according to claim 36 ~~including further comprising a cap releasably engageable with the pin at said one end~~ of the pin.
39. (Currently Amended) A method of releasably interlocking a first component and a second component, wherein the first component defines a first passage and the second component defines a second passage, the method including the steps of:
- connecting the first component to the second component so that the first and second passages are aligned with each other;
 - providing in one of said components a retaining ~~formation~~ element;
 - inserting a pin, which has a pair of spaced walls at least partly defining a circumferentially extending slot for engagement with said retaining ~~formation~~ element, into the aligned passages

so that, when so inserted, the pin is in a free position in which it is free to be selectively withdrawn from the aligned passages;

rotating the pin relative to the components, from the free position to a locked position so that said retaining ~~formation~~element enters interlocks with said slot defined by said ~~the~~ pair of spaced walls to thereby prevent withdrawal of the pin from the aligned passages and hence to prevent separation of the components.

40. (Currently Amended) The method of claim 39, wherein the step of connecting the first component to the second component includes connecting the components such that they can substantially only be separated by effecting relative movement of the components in opposite disengagement directions, and the step of inserting the pin includes inserting the pin such that, when the pin extends from the first passage into the second passage, the pin prevents said relative movement in said disengagement directions.

41. (Currently Amended) Apparatus according to claim 26, wherein said ~~retaining~~engaging formation comprises a ball and said resilient ~~means~~element comprises a coil spring.

42. (Currently Amended) Apparatus according to claim 26, wherein said ~~retaining~~engaging formation comprises a ball.

43. (Currently Amended) Apparatus according to claim 26, wherein said resilient ~~means~~element comprises a coil spring.

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